AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

- 1.-7. (Canceled)
- 8. (Currently Amended) A method of inhibiting angiogenesis or arteriogenesis in a patient in need thereof comprising administering active purified β isoform of antithrombin III to said patient.
 - 9. (Canceled)
- 10. (Previously Presented) The method as claimed in claim 8, wherein the patient is suffering from retinopathy, neuropathy, or infectious disease.
- 11. (Previously Presented) The method as claimed in claim 8, wherein the patient is suffering from cancer.
- 12. (Previously Presented) The method as claimed in claim 11, wherein the cancer is cancerous ulcer or metastasis of cancerous ulcer.

Application No. 10/046,278 Attorney Docket No. 06478.1463-00

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- 13. (Previously Presented) The method as claimed in claim 8, wherein the patient is suffering from rheumatoid arthritis, psoriasis, endometriosis, chronic bronchitis, or chronic inflammation of the gastrointestinal tract.
- 14. (Currently Amended) The method as claimed in claim 8, wherein the <u>purified</u>
 <u>β isoform of</u> antithrombin III is prepared recombinantly or transgenically.
- 15. (Currently Amended) The method as claimed in claim 8, wherein the <u>purified</u> β isoform of antithrombin III is administered intravenously, subcutaneously, intramuscularly or topically.
- 16. (Previously Presented) The method as claimed in claim 10, wherein the infectious disease is leprosy.
- 17. (Currently Amended) The method of claim 8, wherein the active the purified β isoform of antithrombin III is free from latent antithrombin III.

18-19. (Canceled)

Application No. 10/046,278 Attorney Docket No. 06478.1463-00

- 20. (New) A method of inhibiting angiogenesis or arteriogenesis in a patient in need thereof comprising administering purified α isoform of antithrombin III to said patient.
- 21. (New) The method as claimed in claim 20, wherein the patient is suffering from retinopathy, neuropathy, or infectious disease.
- 22. (New) The method as claimed in claim 21, wherein the infectious disease is leprosy.
- 23. (New) The method as claimed in claim 20, wherein the patient is suffering from cancer.
- 24. (New) The method as claimed in claim 23, wherein the cancer is cancerous ulcer or metastasis of cancerous ulcer.
- 25. (New) The method as claimed in claim 20, wherein the patient is suffering from rheumatoid arthritis, psoriasis, endometriosis, chronic bronchitis, or chronic inflammation of the gastrointestinal tract.

Application No. 10/046,278 Attorney Docket No. 06478.1463-00

26. (New) The method as claimed in claim 20, wherein the purified α isoform of

antithrombin III is prepared recombinantly or transgenically.

27. (New) The method as claimed in claim 20, wherein the purified α isoform of

antithrombin III is administered intravenously, subcutaneously, intramuscularly or

topically.

28. (New) The method of claim 20, wherein the purified α isoform of antithrombin

III is free from latent antithrombin III.

29. (New) A method of inhibiting angiogenesis or arteriogenesis in a patient in

need thereof comprising administering a mixture of purified α isoform and β isoform of

antithrombin III to said patient.

30. (New) The method of claim 30, wherein the mixture of purified α isoform and

 β isoform of antithrombin III is free from latent antithrombin III.

-5-